

REMARKS

Applicants respectfully request reconsideration of the claim rejections set forth in the Office action dated May 14, 2007.

Summary

Claims 1 and 106 are currently amended. No new matter is added as a result.

Claim 115 is added.

Claims 1 – 3, 36 – 38, 71 – 73 and 106 – 115 are currently pending.

Summary of Substance of Interview

Applicants thank the Examiner, Andrew C. Flanders, for the telephonic interview on September 7, 2007. During the interview, the Examiner further explained the claim rejections and his interpretation of the cited references. The interview was beneficial for the Applicant's agent to understand the teachings of Best. Applicant's agent also proposed a variation of new claim 115. The Examiner suggested certain claim language. The Examiner generally agreed that new claim 115, which incorporates his claim language, would overcome at least the presently cited references.

Allowable Subject Matter

Claim 108 was objected to as being dependent upon a rejected base claim. The Examiner indicated that Claim 108 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and correcting the 112 issues of the base claims" (Office action dated May 14, 2007; page 10).

Claim Rejections – 35 U.S.C. § 112

Claim 106 was rejected pursuant to 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 106 is currently amended. The claim amendments set forth above provide antecedent basis for each claim limitation. Therefore, claim 106 is in condition for allowance.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3, 36, 38, 73, 78, 106, 107 and 109 - 114 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Heyl (U.S. Patent No. 5,774,567) in view of Best (U.S. Patent 2,265,097). Claims 2, 37, and 72 were rejected pursuant to 35 U.S.C. 103(a) as being unpatentable over Heyl in view of Best and in further view of Frederick (U.S. Patent No. 5,768,126).

Claim 1 recites, *inter alia*, each scale factor is based on an analysis of the entirety of each of said at least two digital audio files relative to the other digital audio files in their entirety.

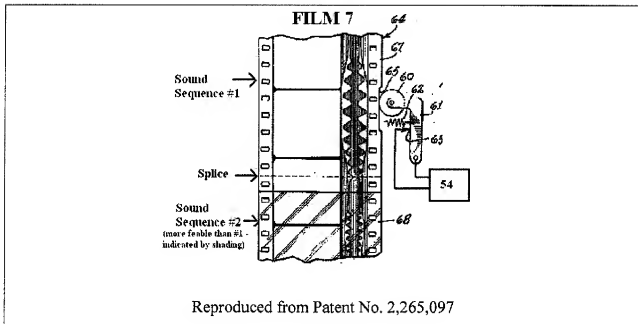
The Examiner stated that Heyl does not disclose “each scale factor is based on an analysis of the entirety of each of said at least two digital audio files relative to each other” (Office action dated May 14, 2007; page 4). Therefore, Heyl does not disclose each scale factor is based on an analysis of the entirety of each of said at least two digital audio files relative to the other digital audio files in their entirety

As discussed in the first section below, Best fails to disclose each scale factor being based on an analysis of the entirety of each of said at least two digital audio files relative to the other digital audio files in their entirety. As discussed in the second section below, one of ordinary skill in the art would not use the teachings of Best in combination with a teaching of analyzing the digital audio files in their entirety. The third section discusses the reasons that one of ordinary skill in the art would not have combined the teachings of Best and Heyl. The fourth section discusses the added claims.

I. Best fails to teach analysis of films 7, 10, and 15 relative to the other films 7, 10, and 15 in their entirety.

Best fails to disclose each scale factor is based on an analysis of the entirety of each of said at least two digital audio files relative to the other digital audio files in their entirety. Best scales as a function of a single film (i.e. a single audio input) with multiple sequences

spliced onto the single film. Best does not teach scaling as a function of multiple films 7, 10, and 15. Best teaches multiple films 7, 10, and 15. Each film has different sound sequences (col. 2, lines 25 – 40). For example, as shown below, film 7 may have sound sequence #1 and sound sequence #2. The recording of sound sequences “usually occurs at different times and under different conditions so that although an attempt is made to maintain a certain uniform recording level, it frequently happens that the average levels for the various sound sequences vary to a considerable degree” (col. 3, lines 8 – 10). The embodiment disclosed by Best “is adapted to automatically equalize the various sound levels from the film 7 before they reach the mixing panel 30” (col. 3, lines 20 – 24). In other words, the teachings of Best are directed to adjusting the sound sequences of a single film relative to the other sound sequences of that film. The Examiner stated: “the average is determined between the sound sequence; i.e. with respect to each other” (Office action dated May 14, 2007; page 5). For example, Best would consider sound sequence #1 and sound sequence #2 on film 7 and determine an average level (“predetermined average level”) for the two sound sequences. Best does not teach comparing the sound sequences on film 7 to the sound sequences on film 10 or film 15. Therefore, claim 1 is allowable over the teachings of Best.



II. One skilled in the art would not have provided scaled factors based on an analysis of the entirety of each of the films 7, 10, and 15 relative to the other films 7, 10, and 15 in their entirety.

Claim 1 of the present patent application is allowable over the teachings of Best because Best fails to disclose each and every element, as discussed above. However, a person of ordinary skill would not have provided the limitations of Claim 1 due to the teachings of Best.

a. Best teaches a mixing panel 30 that adjusts the levels of films 7, 10, and 15 relative to the other films 7, 10, and 15 in their entirety.

Best teaches away from scaled factors based on an analysis of the entirety of each the films 7, 10, and 15 relative to the other films 7, 10, and 15 in their entirety. After scaling sequences within each film, Best teaches mixing the sounds from the films 7, 10, and 15 at a mixing panel 30. Best, referring to figure 1, teaches: "The outputs of cells 22, 25, and 28 are all fed to a mixing panel 30, over conductors 31, 32, and 33, respectively. On the mixing panel 30 is shown a plurality of control knobs 35 which actuate impedances known as "mixing pots" for varying the amplitude of the currents from the cells 22, 25, and 28, the balance thereof being observed by the mixing operator in the monitor loudspeaker 36 connected over conductors 37" (col. 2, lines 44 – 55). In other words, Best teaches that overall levels of films 7, 10, and 15 (from cells 22, 25, and 28 respectively) are adjusted relative to each other on the mixing panel 30. Accordingly, the mixing panel 30 would be redundant if the outputs of cells 22, 25, and 28 were already balanced. One skilled in the art would understand that the mixing panel 30 is used to balance the outputs of cells 22, 25, and 28 from films 7, 10, and 15 relative to the other films 7, 10, and 15. The control box 54 and index card are NOT used to adjust the outputs of cells 22, 25, and 28 relative to the other respective films 7, 10, and 15.

Best teaches that the index card and lever 55 save time (col. 1, lines 1-42) for the user to mix the outputs of cells 22, 25, and 28 using the mixing panel 30 to balance the films 7, 10, and 15. Best teaches that the sound sequences of each individual film are adjusted to a predetermined level, so the user can spend the time needed to "maintain the proper balance

between the dialogue and various background effects” (col. 1, lines 38 – 41). Best teaches that the user maintains the proper balance between the dialogue and various background effects by adjusting the “mixing pots” on the mixing panel 30. (col. 2, lines 39 – 54). The dialogue and various background effects are located on different films 7, 10, or 15 (col. 2, lines 25 – 39). One skilled in the art would understand that Best is teaching that the films 7, 10, and 15 are mixed using the mixing panel 30 by the user with attendant advantages. Therefore, a person of ordinary skill in the art would have used manual mixing of the films as suggested by Best, not a scale factor being based on an analysis of the entirety of each of said at least two digital audio files relative to the other digital audio files in their entirety.

b. Best teaches that analysis is based on “successive sequences.”

Best teaches that the sound sequence levels of a film 7, 10, and 15 are recorded on an index card. The index card is used to manually adjust the outputs of cells 22, 25, and 28. Best teaches: “The index card is, of course, prepared from the differences in level of successive sequences. This card is given to the recorder operator, who will set the lever 55 after each energization, according to the indications on the card” (col. 3, line 66 – col. 4, line 1). One skilled in the art would understand that successive sequences are sequences spliced together on the same film. Successive sequences are not sequences from other films. For example, a sequence from film 7 is not successive with a sequence from film 10. Best expressly states that the “scale factors,” as interpreted by the Examiner, are based on successive sequences. Therefore, a person of ordinary skill would use successive sequences such that a earlier scale factors would not be based on analysis of later sequences. A person of ordinary skill in the art would not use each index card based on an analysis of the entirety of each film 7, 10, and 15 relative to the other films 7, 10, and 15 in their entirety.

In conclusion, the cited references fail to disclose scale factors based on an analysis of the entirety of each of said at least two digital audio files relative to each other. Therefore, claim 1 is allowable over the cited references for at least this reason.

Dependent claims 2 – 3 and 109 – 114 depend from allowable claim 1, so are allowable for at least this reason. Further limitations of the dependent claims are allowable over the cited references.

Independent claims 36 and 71 recite features that are similar to those recited in allowable claim 1, so are allowable for reasons that are similar to those discussed above. Dependent claims 37 – 38 and 72 – 73 depend from allowable claims 36 and 71, respectively, so are allowable for at least this reason.

Independent claim 106 recites features that are similar to those recited in allowable claim 1, so is allowable for reasons that are similar to those discussed above. Further limitations of claim 106 are allowable over the cited references. For example, claim 106 recites generating first and second scale factors based on a maximum value allowed by an output audio file format. For this feature, the Examiner previously stated: “the weight values determined by the computer system; col. 4” (Office action dated May 14, 2007; page 6). However, Heyl nor Best teaches basing the scale factor on a maximum value allowed by an output audio file format. Therefore, claim 106 is allowable over the cited references.

Dependent claim 107 depends from allowable claim 106, so is allowable for at least this reason.

III. One skilled in the art would NOT combine the teachings of Heyl and Best.

Best teaches “a sound rerecording system wherein a plurality of sound records are simultaneously reproduced and recorded into a single composite sound record” (col. 1, lines 1 – 5). Heyl teaches a continuous audio system. The continuous audio system scales audio inputs in real time. For example, in col. 6, lines 8. Heyl teaches one or more sound signals are continuously input, scaled, and output, for example, to a speaker.

Applying the teachings of Best to the system disclosed by Heyl would defeat the purpose of Heyl. Best teaches that a user listens to each sound splice of a sound film

reproducer 4, 5, and 6 (using a different system). The user writes down on an index card whether the sound splice level is, for example, high, medium, or low. The sound film reproducer 4, 5, and 6 is then hooked up to the current system (fig. 1) to adjust the levels of each individual splice. Best uses notches 65 (fig. 2) in the sound film reproducer 4, 5, and 6 to signal the beginning/end of each splice. Before each sound splice, the user adjusts the level using the system (e.g., 54, 50, and 47) disclosed by Best.

According to Best, the sound film reproducer 4, 5, and 6 must be initially listened to in its entirety. Without listening to the film 4, 5, and 6 in its entirety it is impossible to determine how high or low to adjust the levels relative to the sound splices coming after the current sound splice.

Heyl teaches continuous sound input (e.g., someone singing into a microphone, a violin hooked up to an audio input, etc). The sound input is scaled and output in real real-time (e.g., see figure 5, the inputs (mic_L through int_cd) are scaled and output (spker_out) . The sound input is never listened to (either by a user or a processor) in its entirety before the sound input is output. It is impossible to determine how long the sound input is going to be (e.g., the user may sing for 10 minutes or 30 minutes). The system is designed to scale the sound inputs in real time and output through different speakers, etc. The figures support this conclusion because there is no loop-back in any of the figures.

Therefore, one skilled in the art would not combine the teachings of Best and Heyl because it would require Heyl to sacrifice the real-time feature of scaling. Heyl would not longer be able to input a sound input into a microphone and output the scaled sound input through a speaker in real-time. In other words, applying the teachings of Best to Heyl would drastically alter the purpose of Heyl and create a much slower system than disclosed by Best.

IV. New Claims

Claim 115 is added. No new matter has been added as a result. Claim 115 was the focus of the Examiner's Interview dated September 7, 2007. Claim 115 recites a method for

audio mixing and mastering. The cited references fail to disclose each and every feature of the recited claim.

Claim 115 recites the one or more scale factors operable to adjust the identified mean levels of the one or more audio files to the same level and adjust the one or more audio files to a recording medium maximum level as a function of the identified peak values.

Heyl fails to disclose analysis of the one or more audio files. The Examiner stated that Heyl does not disclose “each scale factor is based on an analysis of the entirety of each of said at least two digital audio files relative to each other (Office action dated May 14, 2007; page 4).

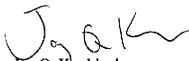
Best fails to disclose analysis comprising identifying a peak value and a mean level for each of the one or more audio files as a function of the identified peak values. As discussed in the interview, the Examiner contends that Best teaches analysis of each audio file to determine an average level. Applicant respectfully disagrees, as discussed above. However, even under the Examiner’s interpretation, Best fails to disclose adjusting the predetermined mean levels to the same level. Best also fails to disclose adjusting the one or more audio files to a recording medium maximum level as a function of the identified peak values.

The cited references fail to disclose the one or more scale factors operable to adjust the identified mean levels of the one or more audio files to the same level and adjust the one or more audio files to a recording medium maximum level as a function of the identified peak values. Therefore, claim 115 is allowable over the cited references.

CONCLUSION

Applicants respectfully submit that all of the pending claims are in condition for allowance and seeks early allowance thereof. If for any reason, the Examiner is unable to allow the application but believes that an interview would be helpful to resolve any issues, he is respectfully requested to call the undersigned at (312) 321-4200.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jay Q. Knobloch', with a stylized flourish at the end.

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